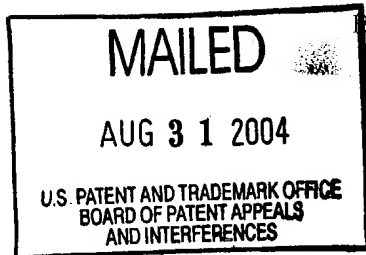


The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE



BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KANAME KONO

Appeal No. 2004-1614
Application No. 09/671,814

ON BRIEF

Before PAK, OWENS, and WALTZ, Administrative Patent Judges.
PAK, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's refusal to allow claims 1 through 7. Claims 8 through 12, the remaining claims in the above-identified application, stand withdrawn from consideration by the examiner as being directed to a non-elected invention. We have jurisdiction pursuant to 35 U.S.C. § 134.

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APPEALED SUBJECT MATTER

According to appellant (Brief, page 2), "[c]laims 1-7 stand or fall together." Therefore, for purposes of this appeal, we select claim 1 as representative of all of the claims on appeal and decide the propriety of the examiner's Section 103 rejections below based on this claim alone consistent with 37 CFR § 1.192(c)(7)(2003).

Claim 1 is reproduced below:

1. A molded metal part produced by a process comprising the steps of:

introducing the melted material into a first chamber;

allowing at least a portion of the melted material to pass through said first chamber into a second chamber, wherein said allowing step comprises creating a suction in the second chamber to draw the portion of the melted material from the first chamber into the second chamber;

pushing at least a portion of the melted material remaining in the first chamber into said second chamber;

injecting the melted material from the second chamber into the mold; and

forming in the mold the molded metal part, the molded metal part having a thickness less than 1 mm and wherein the as-molded surface is sufficiently smooth so that the surface is suitable for painting directly without further processing.

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PRIOR ART

The examiner relies on the following prior art references:

Marder et al. (Marder) 5,413,644 May 9, 1995

S. Kalpakjian (Kalpakjian), *Manufacturing Process for Engineering Material*, 3th ed., Addison Wesley Longman, Inc., (1997), pp. 261-266.

REJECTION

The appealed claims stand rejected as follows¹:

- 1) Claims 1 through 5 under 35 U.S.C. § 103 as unpatentable over the disclosure of Kalpakjian; and
- 2) Claims 1 through 7 under 35 U.S.C. § 103 as unpatentable over the disclosure of Marder.

OPINION

We have carefully reviewed the claims, specification and prior art, including all of the arguments advanced by both the examiner and the appellant in support of their respective positions. This review has led us to conclude that the examiner's Sections 103 rejections are well founded. Accordingly, we affirm the examiner's

¹ The examiner has withdrawn the rejection of claims 1 through 7 under 35 U.S.C. § 112, second paragraph, set forth in the final Office action dated June 14, 2002. See the Answer, page 3.

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decision rejecting the claims on appeal under Section 103 for the reasons set forth in the Answer and below.

The claimed subject matter is directed to "[a] molded metal part" defined at least in part by a process by which it is made (a product-by-process format). See claim 1. Thus, the focus of a patentability inquiry is on the claimed "molded metal part" itself, not a process by which it is made. *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ2d 964, 965-66 (Fed. Cir. 1985) ("If the product in a product-by-process claim is **the same as or obvious** from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process (emphasis added)."); *In re Pilkington*, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969) ("The addition of a method step in a product claim which product is not patentably distinguishable from the prior art, cannot impart patentability to the old product."); *In re Fessman*, 489 F.2d 742, 744, 180 USPQ 324, 326 (CCPA 1974) ("In *Brown*², the court was in

² *In re Brown*, 495 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972) provides a guidance for establishing a *prima facie* case of unpatentability with respect to a product-by-process claim as follows:

It must be admitted, however, that the lack of physical description in a product by-process claim makes determination of the patentability of the claim more difficult... We are therefore of the opinion that when the prior art discloses a product which reasonably

(continued...)

effect saying that the Patent Office bears a lesser burden of proof in making out a case of *prima facie* obviousness for product-by-process claims because of their peculiar nature than would be the case when a product is claimed in the more conventional fashion.”)

Here, we find that substantial evidence supports the examiner’s finding that the molded metal parts described in Kalpakjian and Marder have good dimensional accuracy and surface detail such that they are suitable for painting without further processing. We find that substantial evidence also supports the examiner’s finding that the molded metal parts described in Kalpakjian and Marder include those having the claimed thickness. Kalpakjian, for example, teaches die casting processes for forming high quality and good strength complex molded metal parts having “good dimensional accuracy and surface detail, requiring little or no subsequent machining or finishing operations.” See Kalpakjian, page 263. Kalpakjian goes on to state that “the strength-to-weight

²(...continued)

appears to be either identical with or only slightly different than a product claimed in a product-by-process claim, a rejection based alternatively on either section 102 or 103 of the statute is eminently fair and acceptable. As a practical matter the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith.

ratio of die-cast parts increases with decreasing wall thickness" and exemplifies at Table 5.7 metal parts used for various applications, including those having "[c]omplex shapes with **thin** walls, parts requiring strength at elevated temperature (emphasis added)". *Id.* Implicit in this teaching in Kalpakjian is that its molded metal parts are inclusive of those having a thickness of less than 1mm.

Similarly, as acknowledged by the appellant at page 3 of the Brief, Marder teaches "beryllium-containing alloys of magnesium which can be cast to form parts as thin as 0.019 inches (0.48mm)." Marder also teaches that its alloy product produces is net shape parts which are shown to have desirable structure. See column 5, line 67 to column 6, line 4. Implicit in this teaching in Marder is that its molded metal parts need no further processing.

As acknowledged by the examiner (Answer, pages 3-5), neither Kalpakjian nor Marder teaches a process identical to that claimed. However, for the reasons indicated *supra* and in the Answer, we concur with the examiner that Kalpakjian and Marder would have taught and suggested molded metal parts corresponding to those claimed. Moreover, we agree with the examiner that Kalpakjian and Marder teach a similar casting process as that claimed. *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); *In*

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re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977).

Thus, we determine that the examiner has established a *prima facie* case of obviousness with respect to the claimed molded metal parts.

The appellant does not appear to dispute that at least Kalpakjian teaches forming molded metal parts having the claimed surface. See the Brief, page 3. Rather, the appellant argues that the casting processes described in Kalpakjian and Marder are incapable of producing such surface with molded metal parts having a thickness of less than 1 mm. *Id.* However, the appellant proffers no evidence in support of this position. See *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984); *In re Greenfield*, 571 F.2d 1185, 1189, 197 USPQ 227, 230 (CCPA 1978); *In re Pearson*, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974). In fact, the appellants' position appears to be contrary to the teachings of the applied prior art references as indicated *supra*.

In view of the foregoing, we affirm the examiner's decision rejecting claims 1 through 5 under 35 U.S.C. § 103 as unpatentable over the disclosure of Kalpakjian and claims 1 through 7 under 35 U.S.C. § 103 as unpatentable over the disclosure of Mader.

NEW REJECTION

Pursuant to the provision of 37 CFR § 1.196(b) (2003), we add a new ground of rejection against claims 6 and 7.

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Claims 6 and 7 are rejected under 35 U.S.C. § 103 as unpatentable over the disclosure of Kalpakjian. The relevant contents of Kalpakjian are discussed above. It can be inferred from the above-discussed teachings of Kalpakjian that the shapes, thicknesses and dimensions of molded metal parts are dependent on the applications (utilities) involved. See page 263. In other words, the shapes, thicknesses and dimensions of the molded metal parts are result effective variables. As such, we determine that the determination of the optimum thicknesses and dimensions, including the claimed thicknesses and dimensions, of the molded metal parts for given applications is well within the ambit of one of ordinary skill in the art. *In re Peterson*, 315 F.3d 1325, 1329, 65 USPQ2d 1379, 1382 (Fed. Cir. 2003); *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37 (Fed. Cir. 1990); *In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980).

CONCLUSION

In summary, we affirm the examiner's decision rejecting claims 1 through 5 under 35 U.S.C. § 103 as unpatentable over the disclosure of Kalpakjian and claims 1 through 7 under 35 U.S.C. § 103 as unpatentable over the disclosure of Mader. Pursuant to the provisions of 37 CFR § 1.196(b), we add a new ground of rejection against claims 6 and 7.

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In addition to affirming the examiner's rejection of one or more claims, this decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b). 37 CFR § 1.196(b) provides, "[a] new ground of rejection shall not be considered final for purposes of judicial review."

Regarding any affirmed rejection, 37 CFR § 1.197(b) provides:

(b) Appellant may file a single request for rehearing within two months from the date of the original decision

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

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Should the appellant elect to prosecute further before the Primary Examiner pursuant to 37 CFR § 1.196(b)(1), in order to preserve the right to seek review under 35 U.S.C. §§ 141 or 145 with respect to the affirmed rejection, the effective date of the affirmance is deferred until conclusion of the prosecution before the examiner unless, as a mere incident to the limited prosecution, the affirmed rejection is overcome.

If the appellant elects prosecution before the examiner and this does not result in allowance of the application, abandonment or a second appeal, this case should be returned to the Board of Patent Appeals and Interferences for final action on the affirmed rejection, including any timely request for rehearing thereof.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED/§ 196(b)

CHUNG K. PAK
Administrative Patent Judge

Terry J. Owens
TERRY J. OWENS
Administrative Patent Judge

BOARD OF PATENT
APPEALS
AND
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THOMAS A. WALTZ
Administrative Patent Judge

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